

MEMORANDUM

21 December 1967

[REDACTED] STAT
SUBJECT 9-1/2" BLACK AND WHITE [REDACTED] PROCESSOR MODIFICATIONS
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The following changes of the 9-1/2" black and white [REDACTED] processor are the approaches we are planning to produce a properly functioning system. These changes will enable us to process film [REDACTED] adequately. [REDACTED] STAT
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1. Replenishing System

The replenishing system will consist of replenishing tanks sufficient in size to process 500 feet of film, (Figure 1) These tanks will be installed above the processor which will provide the required head pressure to operate the flow meters. Each processing module will be modified by the addition of overflow stand pipes. The replenishing tank supports will be permanently mounted on the processor. The replenishment tanks shall be detachable for ease of maintenance. Each tank will be furnished with a lid to reduce aerial oxidation and evaporation.

2. Dryer

There are two possible design approaches to the drying problem which shall be studied.

A. The simplest modification appears to be the addition of a second infra red source which will be installed so that the radiation is applied to the emulsion side of the film. (Figure 2.) Approximately one-half of the existing air knives will be removed to facilitate the installation of a second infra red source. The existing cooling system should be sufficient to accommodate this additional load. It may be necessary to provide a second voltage control unit.

B. The second design approach will require extensive modification to the takeup end of the processor. These modifications will consist of removing the infra red source air knives and supporting equipment. This system as shown in Figure 1 will be of the heated air impingement plenum type and will consist of three air plenums and the associated

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rollers required to guide the film. As this type of dryer will require more air, the existing blower will be used for the wet section only, further reducing carryover. An additional blower will be used for the dryer section. This dryer blower will be housed inside the available space under the vacuum capstan, therefore no increase in processor length is anticipated. (Figure 3.)

3. Temperature Indicating System

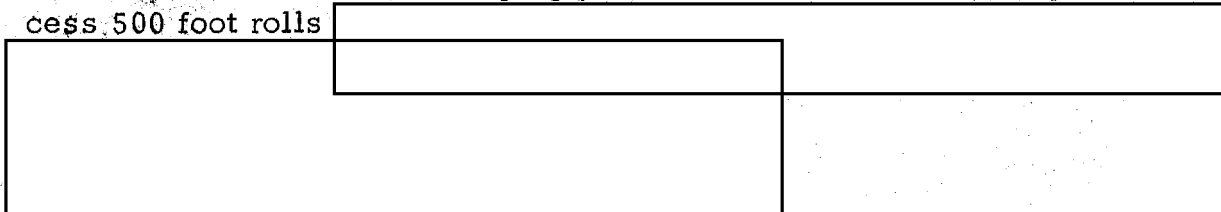
The temperature indicating system will be tested for accuracy and reliability. If the present system proves unusable, it will be replaced with a thermister operated system.

4. The Film Transport Indicating System

The film transport indicating system will consist of an independent tachometer and a FPM indicating meter mounted adjacent to the speed control knob on the front panel.

EVALUATION

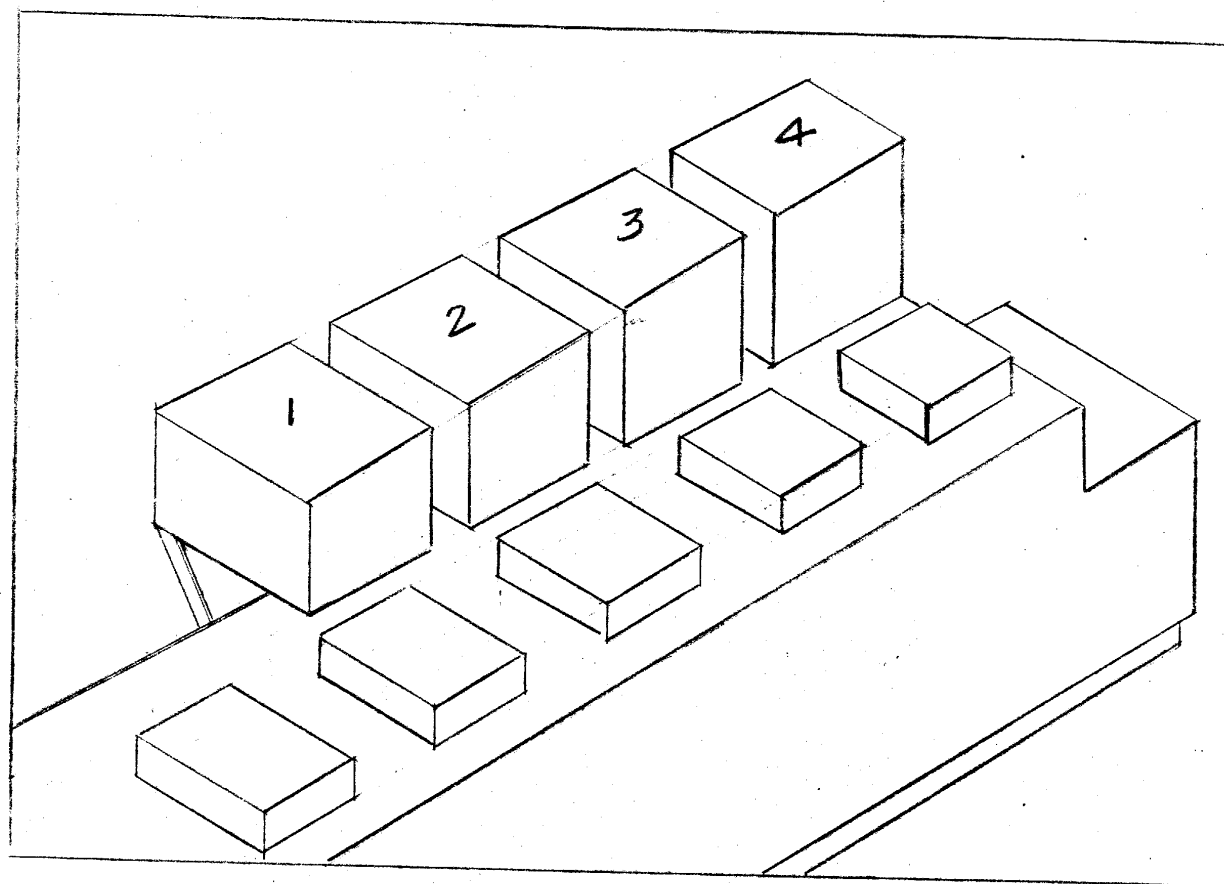
All modifications to this processor will be tested and evaluated. Further testing will be conducted to establish replenishing rates for 70mm and 9-1/2" film widths and drying parameters required to properly process 500 foot rolls



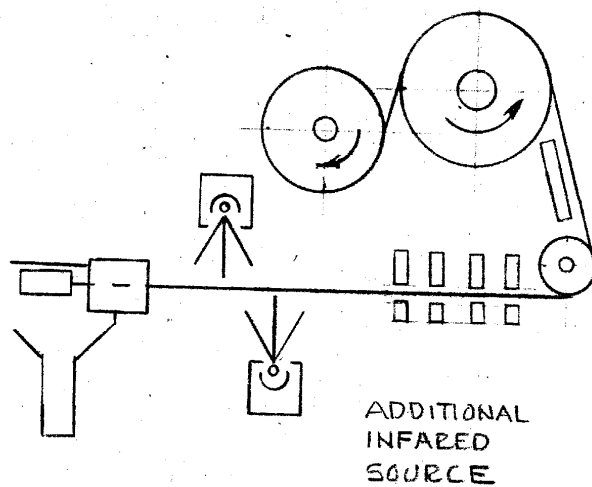
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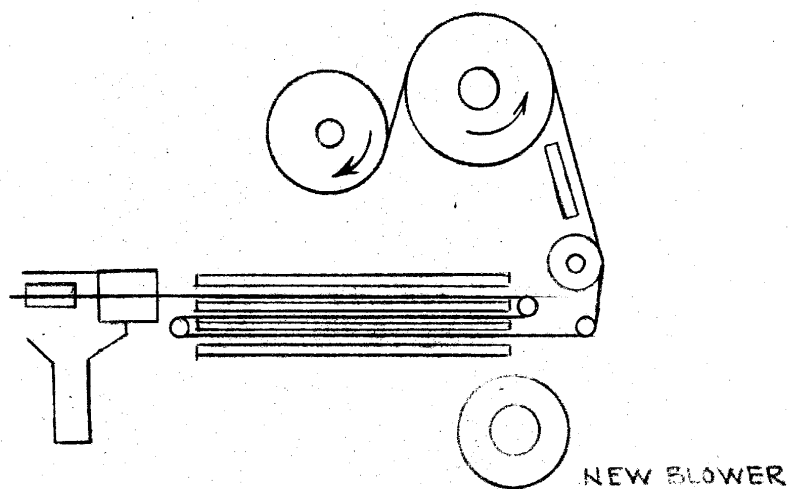


REPLENISHMENT MODIFICATION



INFARED DRYER MODIFICATION

FIG. 2



PLENUM DRYER MODIFICATIONS

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Dear Ray -

Please let me know if you concur
with this program.

Very sincerely,

Dick

A handwritten signature in black ink, appearing to be "Dick".

*Answered verbally by
phone. - OK. RMB.*